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| 09/901,514 | 07/09/2001 | Joseph P. Tunney | 47440-041000 | 7160 |
| 7590 | 10/23/2003 | | | EXAMINER |
| Stephen T. Scherrer McDermott, Will & Emery 31st Floor 227 West Monroe Street Chicago, IL 60606 | | | WINTER, GENTLE E | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,514

Applicant(s)

TUNNEY ET AL.

Examiner

Gentle E. Winter

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3,7-17 and 19-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3,7-13,15,17 and 19-21 is/are rejected.

7) Claim(s) 14 and 16 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 09 July 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

Response to Amendment

Claim Rejections - 35 USC § 112--Withdrawn

1. Claims 3, 8, 9, 11, 15, and 17 were rejected under 35 U.S.C. 112, second paragraph, Applicant's amendments/clarifications have overcome the rejection and the rejection is withdrawn.

Claim Rejections - 35 USC § 102--Withdrawn

2. Claims 1-3, 5-10 and 12-17 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,186,709 to Bombard. Applicant has amended the relevant claims to indicate that the pressurized container is a "pressurized rail tank car". As such the rejection is withdrawn.

Claim Rejections - 35 USC § 103--Maintained

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4, 11, and 18-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bombard and Gammell, Bombard, and Bombard, Gammell, and Van Pool, respectively. The rejection is maintained with respect to limitations found in claim 11 and is moot with respect to the limitations found in claims 4-6 and 18, which are cancelled. The 35 U.S.C. § 103(a) was not

specifically addressed in the Office action response, or the supplemental response—probably because the rejection was moot in view of the amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, and 19-21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bombard, Gammell and Van Pool.
2. Claims 1, and 19-21 recite a method of cleaning pressurized rail tank cars containing chemicals comprising providing a pressurized rail tank car having a quantity of chemicals (fuel) contained therein; and providing an input gas (Bombard Column 2, line 9). Heating the input gas (Bombard heated air Column 2, line 9). Injecting the input gas into the rail tank car via a first valve (valve 148 column 5, line 20) to form a chemical/input gas mixture within the rail tank car and removing the chemical/input gas mixture from the rail tank car (suctions air from the tank column 2, line 7). Injecting further quantities of heated input gas into the rail tank car to form further chemical/input gas mixtures and (looped, see figure 1). Injecting further chemical/input gas mixtures into the reaction tank, to react the chemical in the further chemical/input mixtures with the neutralizing material to dispose of the chemical, until the fume level of the chemical within the rail tank car has reached a predetermined level (per EPA regulations)

3. Each and every limitation of claims 1, and 19-21 is disclosed in Bombard as set forth above, except that Bombard fails to explicitly disclose that the container is a pressurized rail car and the step of reacting the chemical of the chemical/input gas mixture with a caustic neutralizing material. Although Bombard discloses lowering hazardous gas emissions from a mobile chemical storage tank is (e.g. a jet fuel tank), Bombard apparently fails to explicitly disclose that the mobile container is a rail tank car. (See Gammell, for instance figure 1, and column 2, line 46-63 column 3, line 29-32 and column 8, line 14-26). One of ordinary skill at the time of the invention would have been motivated to use the method of Bombard on rail cars for the reasons explicitly set forth by Bombard, namely so that the fuel tank may be safely entered by maintenance personnel. The combination of Bombard and Gammell fail to teach reacting the chemical with a neutralizing material. Van Pool discloses the neutralizer and explicitly provides the motivation for using the same. Van Pool discloses neutralizing the effluent vapor in a caustic NaOH bath. Column 1, line 33 *et seq.* The artisan would have been motivated to use the NaOH neutralizer of Van Pool to selectively remove components that are not suitable for alternative disposal, such as flaring. The halogens in the fuel will form a salt in the caustic solution e.g. NaF.

4. As to claim 2, disclosing using a vacuum pump, bombard discloses the same at column 2, line 4 *et seq.*

5. As to claim 3, further limiting claim 2 and disclosing removing the chemical from the tank using the vacuum pump prior to injecting the heated gas into the tank. Bombard discloses draining the fuel from the tank prior to commencing the evaporation column 1, line 14 *et seq.* especially line 18 *et seq.*

6. As to claim 7, disclosing that the input gas is heated to between 100F-300F the same is disclosed at column 2, line 22 *et seq.*
7. As to claim 8, disclosing the additional steps of providing an input pipe (element 86 and relevant associated text) attached to the tank via a first valve (element 90 and relevant associated text). Providing an output pipe (element 44 and relevant associated text) attached to the tank via a second valve (element 62 and relevant associated text) on a first end of the output pipe and a disposal means (the vapor recovery unit 80) on a second end of the output pipe. Closing the second valve (blocking the outlet for ventilation) and opening the first valve (90) when injecting the input gas.
8. As to claim 9, further limiting claim 8 and disclosing closing the first valve (90) and opening the second valve (62) when removing the chemical or chemical/input gas mixture.
9. As to claim 10 and 11, disclosing providing a control means for automatically controlling the injection of the input gas and removal of the chemical/input gas mixture. Blower (60) meets the claim limitation as a means for controlling. The blower is automatic, in as much as it is not manually operated.
10. As to claim 12, disclosing the step of providing a plurality of valves the on the tank, and opening a first valve to inject the tank with heated input gas to form the chemical/input gas mixture. The claim features are disclosed in figure 3 of Bombard. The valves have been described with respect to claim 8 above. It is not altogether clear what function is served by a plurality of nozzles, especially since the function of only one is claimed. It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the

method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

11. As to claim 13, further limiting claim 12, and disclosing closing the first valve when the tank is sufficiently pressurized and opening the second valve to remove the chemical/input gas mixture. Since the degree of pressurization is not indicated it is impossible to know what degree of pressurization is contemplated. Further it is not clear that this is a sequential series of steps. The blower (60) increases the pressure when valve 90 is closed (blocking the air inlet) and valve 90 remains open to the vapor recovery unit. The valves are operated in four separate systems. See column 2, line 54 *et seq.* It is also noted that if a sequential order is contemplated (batch like processing) this does not appear to be contemplated by Bombard. The addition of some language indicating that sequential steps would seemingly overcome the constant flow system contemplated by Bombard.

12. As to claim 15, disclosing synchronizing the injection of the heated input gas and the removal of the chemical/input gas mixture. The gas is blown through the tank, and while there is a variable residency time in the tank, and factors related to compressibility, the addition of the input gas mixture is substantially contemporaneous with the removal of a corresponding amount of chemical laden gas.

Allowable Subject Matter

1. Claims 14 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter: Claim 14 further limits claims 1, 12, and 13. Additionally, claim 14 discloses synchronizing the opening and closing of first and second valves so that the first valve is closed when the second valve is open and the first valve is open when the second valve is closed. This is not disclosed in the aggregated references and is not consistent with the operation of Bombard.

Double Patenting--New

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
2. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

3. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).
4. Claims 1-13, 15, 17, and 19-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,443,166 in view of Van Pool. The '166 reference identically discloses the claimed invention except '661 fails to explicitly disclose the use of a neutralizing bath. Van Pool provides the missing element and explicitly provides the motivation for making the instant combination. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine '661 and Van Pool. Van Pool discloses the neutralizer and explicitly provides the motivation for using the same. Van Pool discloses neutralizing the effluent vapor in a caustic NaOH bath. Column 1, line 33 *et seq.* The artisan would have been motivated to use the NaOH neutralizer of Van Pool to selectively remove components that are not suitable for flaring.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (703) 305-3403.

The examiner can normally be reached on Monday-Friday 7:00-3:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gentle E. Winter
Examiner
Art Unit 1746

October 16, 2003



RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY